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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/802,911	03/12/2001	Eric B. Allen	58207.000004	7159

7590 08/16/2002

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EXAMINER

MORAN, MARJORIE A

ART UNIT	PAPER NUMBER
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1631

DATE MAILED: 08/16/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/802,911

Applicant(s)

ALLEN ET AL.

Examiner

Marjorie A. Moran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 March 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-56 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \*   c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-13, drawn to a system for demonstrating signal cascades in cells, classified in class 703, subclass 2.
- II. Claim 14, drawn to a computer implemented method for (simulating) a reverse pathway, classified in class 703, subclass 2.
- III. Claim 15, drawn to a computer implemented method for predicting pathways, classified in class 703, subclass 2.
- IV. Claims 16-19, drawn to a computer implemented method for simulating an aspect of a cellular biochemical pathway, classified in class 703, subclass 2.
- V. Claims 20-28, drawn to a system for simulating a cellular biochemical pathway, classified in class 703, subclass 11.
- VI. Claims 29-47, drawn to a method to generate a representation of a biochemical pathway, classified in class 703, subclass 2.
- VII. Claims 48-50, drawn to a method to generate a representation of an event of a biochemical pathway, classified in class 703, subclass 2.
- VIII. Claim 51, drawn to a method to determine the effect of modulating a reaction in a biochemical pathway, classified in class 703, subclass 11.
- IX. Claim 52, drawn to a method to identify a pharmaceutical target in a biochemical pathway, classified in class 703, subclass 2.
- X. Claim 53, drawn to a device to generate a representation of a biochemical pathway, classified in class 703, subclass 11.

- XI. Claim 54-55, drawn to a device to generate a representation of a biochemical pathway comprising different elements than that of Group X, classified in class 703, subclass 11.
- XII. Claim 56, drawn to a device to generate a representation of a biochemical pathway comprising elements different from those of either Group X or XI, classified in class 703, subclass 11.

The inventions are distinct, each from the other because of the following reasons:

Inventions II-IV and VI-IX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are directed to methods comprising different method steps and requiring use of different products (e.g. the step of dynamically generating results recited in Group III is not recited in the methods of any other Group and the step of providing as input a set of separately defined concepts and events recited in Group VI is not recited in any of Groups II-IV). In addition, the method of any one Group may be preformed without knowledge of or reference to the steps or results of any other Group. For these reasons, Groups II-IV and VI-IX are not related.

Inventions I, V, and X-XII are not related. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are directed to different products with different limitations, and would be expected to therefore to have different functions. For example, the database of Group I is not recited as a limitation for the system of Group V or the devices of Groups X-XII, the simulation module of Group V is not recited as a limitation for any of Groups I or X-XII, each

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of Groups X and XI recites a different data processing unit, while Group XII does not comprise a data processing unit. As the systems and devices of Groups I, V, and X-XII recite different limitations, they would be expected to have different modes of operation, different functions, and would be used in different methods (i.e. would give different effects), and are therefore unrelated.

None of Groups II-IV and VI-IX is related to any of Groups I, V, and X-XII. None of the methods of Groups II-IV and VI-IX is limited to be one preformed using any of the systems or devices of Groups I, V, and X-XII, and none of the systems or devices is limited to be one for use in a method of one (or more) of Groups II-IV or VI-IX. In addition, any of the systems or devices of I, V, and X-XII may be used to perform any of the methods of Groups II-IV and VI-IX. For these reasons, each of Groups I, V, and X-XII is separate and distinct from each of Groups II-IV and VI-IX.

Because these inventions are distinct for the reasons given above and the search required for any one Group is not required for a search of any other Group, restriction for examination purposes as indicated is proper.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marjorie A. Moran whose telephone number is (703) 305-2363. The examiner can normally be reached on Monday to Friday, 7:30 am to 4 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (703) 308-4028. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4242 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to a patent analyst, Tina Plunkett, whose telephone number is (703) 305-3524.



Marjorie A. Moran  
Examiner  
Art Unit 1631

August 14, 2002